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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/530,707 | 04/08/2005 | Bernd Zaschke | 268510US0PCT | 6914 |

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| EXAMINER | |
|---|---|
| COONEY, JOHN M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1796 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 08/04/2008 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/530,707 | ZASCHKE ET AL. | |
| | Examiner | Art Unit | |
| | John Cooney | 1796 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-15 and 17-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 17-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The finality of the previous Office action is withdrawn. All previous rejections are withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 12,17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Haider et al.(2004/0014828).

Haider et al. discloses preparation of rigid closed cell polyurethane foams having closed cell contents in excess of 80% that are prepared by mixing and reacting MDI isocyanates having NCO content values and viscosities meeting those of applicants' claims, polymer/graft polyols employed in amounts meeting those claimed, catalysts, and blowing agents (see abstract, paragraphs [0009]-[0017] & [0026]-[0039], examples, and claims, as well as, the entire document).

Claims 1-5, 12, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Singh et al.(6,319,962).

Singh et al. discloses preparation of rigid closed cell polyurethane foams having closed cell contents in excess of 80% that are prepared by mixing and reacting "crude" MDI isocyanates, polymer/graft polyols employed in amounts meeting those claimed, catalysts, and blowing agents (see abstract, column 3 lines 28-40, column 4 lines 15-25, column 5 lines 8-12, and the examples, as well as, the entire document). The ranges of viscosity and NCO content values of applicants' claims are seen to be inherent to Singh et al.'s teaching of "crude" MDI based on the closeness of compositional make-ups of the "crude" MDI of Singh et al. and the "crude" MDI of applicants' invention.

Claims 13-15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto et al.(6,117,937).

Matsumoto et al. discloses preparations of polymer/graft polyols prepared using initiators as claimed and having OH values meeting those of the claims (see column 1 lines 11-14, column 2 line 43 - column 4 line 41 and column 5 lines 7-26, as well as, the entire document).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haider et al.(2004/0014828) as applied to claims 1-5, 12, 17, and 18 above, and further in view of Matsumoto et al.(6,117,937) and EP-0,786,480{previously cited}.

Haider et al. differs from applicants' claims in that it does not particularly employ polymer polyols as defined by applicants' claims. However, Matsumoto et al. discloses preparations of polymer/graft polyols prepared using initiators as claimed and having OH values meeting those of the claims in making polyurethane foams for the purpose of imparting good compression and durability effects to the products obtained (see column 1 lines 11-14, column 2 line 26 - column 4 line 41 and column 5 lines 7-26, as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the polymer polyols of Matsumoto et al. in the preparations of Haider et al. for the purpose of imparting their compression and durability enhancing effects in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Haider et al. differs additionally from applicants' claims 7 and 8 in that it does not specify particle sizes or distribution of their particles in their polymer polyols. However, EP-0,786,480 discloses polymer polyols having narrow particle sizes meeting those of applicants' claims for the purpose of providing polymer polyols used in urethane

applications that have good processing effects (see abstract & page 6 lines 26-55, as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed polymer polyols having particle sizes disclosed by EP-0,786,480 in the preparations of Haider et al. for the purpose of imparting good processing effects in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. As to the bimodal particle distribution of applicants' claim 8, Haider et al. provides for at least on polymer polyol to be used within its teachings. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed multiple polymer polyols within the teachings of Haider et al. having independent, narrow particle sizes as provided for by EP-786,480 for the purpose of providing a multiplicity of polymer polyols having good processing effects in order to arrive at the processes encompassed by applicants' claim 8 in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller,* 105 USPQ 233; *In re Reese* 129 USPQ 402. Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch,* 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The following is set forth in the alternative to the above rejection under 35 USC 102(e) over Haider et al.

Claims 1-5, 12, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haider et al. in view of Milliren et al.(5,457,137).

Haider et al. discloses preparation of rigid closed cell polyurethane foams having closed cell contents in excess of 80% that are prepared by mixing and reacting MDI isocyanates having NCO content values and viscosities meeting those of applicants' claims, polymer/graft polyols employed in amounts meeting those claimed, catalysts, blowing agents, and other additives and/or auxiliaries (see abstract, paragraphs [0009]-[0017] & [0026]-[0039], examples, and claims, as well as, the entire document).

Haider et al. differs from applicants' claims in that it does not specifically require that closed cell contents in excess of 80% be at least 88% and/or 95%. However, Milliren et al. discloses that ethylene diamine crosslinkers are known to increase closed cell contents in polyurethane foam manufacture (see column 2 lines 9-12, as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the ethylene diamine crosslinkers of Milliren et al. as an additional auxiliary component in the preparations of Haider et al. for the purpose of imparting their closed cell increasing effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Scholl et al.(5,386,054) is cited for its disclosure of relevant physical properties pertaining to crude isocyanates. Haider et al. (6,833,390) is cited as the patent corresponding to the Haider et al.(2004/0014828) document cited above. Hinz et al. and Green et al. are cited for their relevant disclosures of materials in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Cooney/

Primary Examiner, Art Unit 1796